

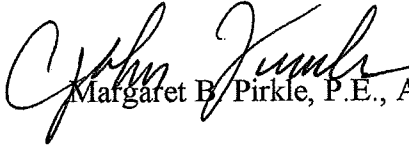
ORIGINAL TO GENERAL FILES

D.O.T. 66

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE** STP-7001(9) Richmond County **OFFICE** Preconstruction  
P. I. No. 250510  
**DATE** August 15, 2002  
**FROM**  Margaret B. Pirkle, P.E., Assistant Director of Preconstruction  
**TO** SEE DISTRIBUTION

**SUBJECT REVISED PROJECT CONCEPT REPORT APPROVAL**

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

David Mulling  
Harvey Keepler  
Jerry Hobbs  
Herman Griffin  
Michael Henry  
Phillip Allen  
Marta Rosen  
Ben Buchan  
Mike Thomas  
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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AUG - 1 2002

**INTERDEPARTMENTAL CORRESPONDENCE**

FILE: STP-7001(9), Richmond County  
P.I. No. 250510-

OFFICE: Office of Urban Design

DATE: ~~July 9, 2002~~

FROM:  Joseph P. Palladi, P.E., State Urban Design Engineer  
TO: Wayne Hutto, P.E. - Assistant Director of Preconstruction  
SUBJECT: Revised Project Concept Report

Attached is the original copy of the revised concept report for your further handling for approval in accordance with the PDP.

The proposed concept has been revised to relocate Wrightsboro Road to the south between Maddox Drive and Barton Chapel Road. The original concept relocated Wrightsboro Road to the north in order to avoid impacts to historic resources. The southern alignment became feasible after approval of the original concept, because of changes to the historic resources study within this corridor by the State Historic Preservation Officer. This revised alignment will utilize more of the existing Wrightsboro Road, and minimize impacts to protected streams.

The concept for the proposed relocation of Augusta West Parkway and Barton Chapel Road to form a single signalized intersection has also changed. Barton Chapel Road will be realigned to the west and Augusta West Parkway will remain at its current location. This revised design will allow for acceptable traffic operations and will satisfy current guidelines for minimum intersection spacing, while minimizing impacts to existing residential and commercial developments in the area.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTPI) and/or the State Transportation Improvement Program (STIP).

DATE 7/26/02

  
\_\_\_\_\_  
State Transportation Planning Administrator

cc: Environment/Location

Distribution of Revised Concept Reports

# **REVISED PROJECT CONCEPT REPORT**

## **NEED & PURPOSE STATEMENT**

The proposed project would widen existing Wrightsboro Road, an urban principal arterial, to a four lane divided roadway. The existing roadway is a two-lane section with no turn lanes at intersections. The existing shoulder on the south side of Wrightsboro Road is mostly header curb with sidewalk and insufficient drainage structures. The north side of Wrightsboro Road is primarily narrow graded shoulders with steep ditches, which violate clear zone requirements and present a safety hazard. The existing land use along Wrightsboro Road is mostly residential with some commercial sites.

The proposed roadway consists of four through lanes, four-foot bike lanes in each direction, a 20' raised median, and turn lanes at median openings. Proposed shoulders include curb and gutter with adequate drainage structures and sidewalks on both sides. Streetlights will also be included along the future Wrightsboro Road.

Wrightsboro Road operates as an arterial between Jimmie Dyess Parkway and Interstate 520. Jimmie Dyess Parkway has recently been extended as a four-lane divided roadway from I-20 to Gate 1 of Ft. Gordon at US 78. Wrightsboro Road is a five-lane section from Barton Chapel Road to the east. New developments are planned along Wrightsboro Road such as a new elementary school building and an assisted living facility, and several commercial sites have already been built. Current land uses for Wrightsboro Road in the I-520 area is mostly commercial and no major shifts in land uses are anticipated. Therefore, current traffic patterns along Wrightsboro Road at the I-520 interchange are not expected to change.

Wrightsboro Road was widened to five lanes for approximately 2400 feet east of the intersection with Jimmie Dyess Parkway as part of the Jimmie Dyess Parkway widening project and improvements to the Jimmie Dyess/ Wrightsboro Road intersection were made. It appears that in the mid 1970's, Wrightsboro Road was widened from two to five lanes from Barton Chapel Road to I-520 and from I-520 to Highland. The section of I-520 from Wrightsboro Road to Deans Bridge Road was opened in 1974. Augusta Mall, to the east of I-520, opened in the summer of 1978. It is possible that the Wrightsboro Road widening was initiated in coordination with the extension of I-520 or the opening of Augusta Mall.

Proposed improvements would begin at the existing five-lane section of Wrightsboro Road and would end at the I-520 southbound ramp terminus where the proposed raised median ends. This widening will provide a continuous four-lane facility connecting I-20 and Fort Gordon with I-520 and commercial developments along Wrightsboro Road to the east. Approximately 60% of traffic along Wrightsboro Road continue through the I-520 interchange, and future projects have been, and are being studied to the east of the project end. The proposed improvements will not preclude recommendations to improve

the ramps and interchange at I-520. The Wrightsboro Road project will also not preclude any improvements recommended as part of an area study to be done by the Augusta MPO for Augusta Mall to the east of I-520. The ARTS 2020 Plan does not include any other recommendations for Wrightsboro Road or its interchange with I-520.

Based on the future traffic, the level of service will deteriorate on Wrightsboro Road without the proposed improvements. Projected average daily traffic between Jimmie Dyess Parkway and Belair Road is in the range of 25,500. According to general guidelines for arterial level of service analysis, Wrightsboro Road will operate at a level of service E for this segment if improvements are not made. The deterioration will be more significant on the eastern end of Wrightsboro Road where unacceptable levels of service will be experienced between Belair Road and I-520 southbound ramp termini during the peak hours. In addition, due to the conflicts with the left turns on Crescent Drive and the increased congestion in the AM peak, traffic will experience substantial delay traveling westbound in the future without the proposed improvements (See attached no-build level of service analysis table). The proposed widening with the four lane divided design will improve the flow of traffic for future conditions. The future level of service with proposed improvements will result in no worse than a level of service C at the intersections along Wrightsboro Road, including the existing intersection configuration at Jimmy Dyess Pkwy.

The analysis of accidents was performed by segment and intersection. The accident and injury rates by segment are below GDOT's statewide average for Urban Principal Arterials for the western end of the facility. However the accident and injury rates by segment exceed GDOT's statewide average for the eastern portion of Wrightsboro Road between Belair Road and I-520 southbound ramp termini. The analysis of accidents by intersections shows that there is higher incidence of accidents on the eastern end of the project. Five of the intersections exceed the average number of accidents for Augusta per year based on the most recently available data provided by GDOT. The addition of right and left turn bays and a signal at the intersection with Belair Road will provide a more controlled environment for turning movements and will remove left turn vehicles from through traffic.

The proposed improvement is included in the Augusta Regional Transportation Study's (ARTS) adopted 2020 Plan. Pedestrian and bicycle facilities are recommended for the entire length of the project. The transportation study is a comprehensive, cooperative, and continuing transportation planning process conducted by the local governments and the Georgia and South Carolina Departments of Transportation in cooperation with the Federal Highway and Federal Transit Administrations. The proposed improvement is included in the current ARTS Transportation Improvement Program (TIP).

The purpose of this project is to correct roadway deficiencies, improve the operational efficiency, provide a safer transportation environment for vehicles, bicycles and pedestrians, and serve the transportation demand generated by the increase in developments.

**PROJECT LOCATION:**

The proposed project is Wrightsboro Road in the city of Augusta. The project begins at mile marker 0.49, approximately 2400 feet east of the intersection with Jimmie Dyess Parkway where the existing five-lane section ends, and extends approximately 2.4 miles to mile marker 2.89 - the intersection of the I-520 southbound ramps.

**DESCRIPTION OF THE APPROVED CONCEPT**

The approved concept is the widening and reconstruction of Wrightsboro Road from a two-lane section to a four-lane road with a 20' raised median. The proposed alignment follows the existing Wrightsboro Road from the project beginning to Maddox Drive. Wrightsboro Road is realigned between Maddox Drive and Barton Chapel Road in order to avoid impacts to historic resources that were identified in this corridor.

Improvements to Barton Chapel Road and Augusta West Parkway are also included, which consist of the realignment of both roadways to form a single signalized intersection. The construction of required left and right turn lanes at this intersection was also included.

**PDP CLASSIFICATION:** Full oversight ( )      Exempt (x)      SF ( )      Other ( )

**FUNCTIONAL CLASSIFICATION:** Urban Principal Arterial

**STATE ROUTE #:** N/A

**TRAFFIC AS SHOWN IN THE APPROVED CONCEPT:**

Current ADT (2000): 29,660

Projected ADT (2020): 39,500

**PROPOSED FEATURES TO BE REVISED:**

1. The current concept calls for the realignment of Wrightsboro Road to the north, between Maddox Drive and Barton Chapel Road. This realignment was proposed in order to avoid impacts to historic resources that were identified in this corridor. Belair Road was extended approximately 450' in order to intersect with the relocated Wrightsboro Road, which resulted in impacts to a tributary of Rae's Creek.
2. As part of the approved concept, Barton Chapel Road would be relocated to the east, and Augusta West Parkway would be relocated to the west in order to create a single signalized intersection. The construction of appropriate left and right turn lanes at this intersection was also proposed as part of the concept. It was

anticipated that the Barton Chapel Road/ Augusta West Parkway intersection construction would result in approximately five residential and three commercial displacements.

### **REVISED FEATURES**

1. The proposed Wrightsboro Road will be relocated to the south between Maddox Drive and Augusta West Parkway. This revised concept will utilize more of the existing roadway, and will result in reduced impacts to protected streams by eliminating the proposed crossing of Rae's Creek Tributary that would be required as part of the Belair Road extension. The revised concept was made possible when the State Historic Preservation Officer eliminated the historic determination of one structure, and revised the historic boundary of another structure in this corridor.
3. Barton Chapel Road will be relocated approximately 180' to the west, and Augusta West Parkway will remain at its current location. The proposed intersection locations of Barton Chapel Road and Augusta West Parkway with Wrightsboro Road will provide adequate distance for required left turn queue lengths, and will satisfy current intersection spacing requirements. The revised concept, which also includes the construction of appropriate left and right turn lanes at both intersections, will provide adequate levels of service and minimize impacts to adjacent residential and commercial developments.

### **UPDATED TRAFFIC:**

Current ADT (2004): 31,650

Projected ADT (2025): 42,300

### **PROGRAMMED SCHEDULE:**

P.E.: 2000

R/W: 2002

Construction: 2004

### **IS THE PROJECT LOCATED IN A NON-ATTAINMENT AREA?**

YES \_\_\_\_\_

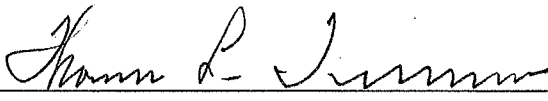
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**RECOMMENDATION:** It is recommended that these changes be approved and that the project estimate be adjusted to reflect these changes.

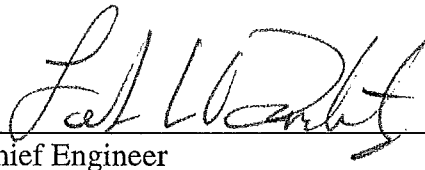
**ATTACHMENTS:**

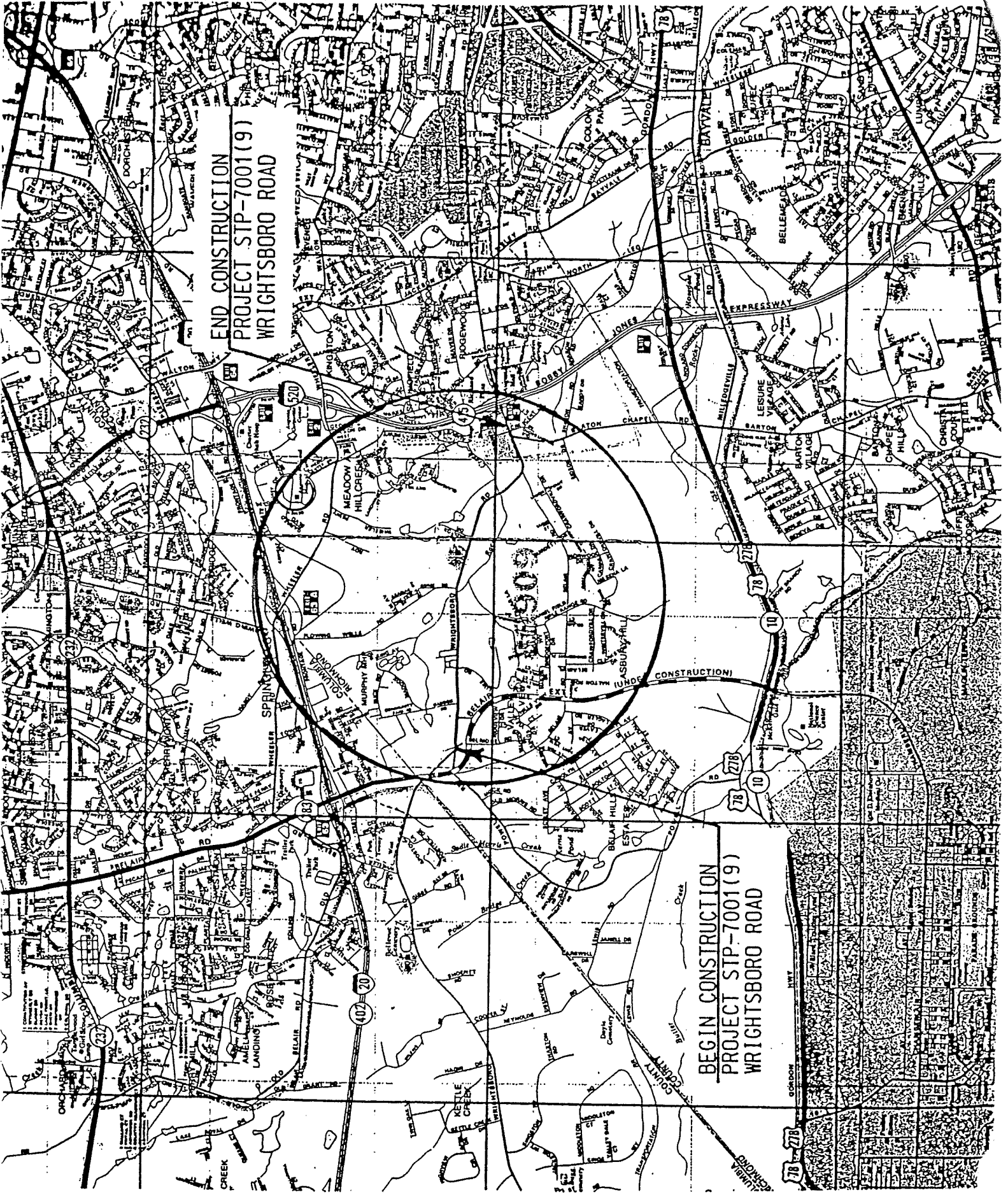
1. Location Sketch
2. Cost Estimate

Concur:

  
\_\_\_\_\_  
Director of Preconstruction

Approve:

  
\_\_\_\_\_  
Chief Engineer



END CONSTRUCTION  
PROJECT SIP-7001(9)  
WRIGHTSBORO ROAD

BEGIN CONSTRUCTION  
PROJECT SIP-7001(9)  
WRIGHTSBORO ROAD



NOTES/ COMMENTS: \_\_\_\_\_  
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### ESTIMATE SUMMARY

RIGHT-OF-WAY	\$ 5,400,000.00
REIMBURSABLE UTILITIES	\$ 250,000.00

### CONSTRUCTION COST SUMMARY

CLEARING AND GRUBBING	\$ 550,000.00
EARTHWORK	\$ 600,000.00
BASE AND PAVING	\$ 2,928,600.00
DRAINAGE	\$ 754,600.00
CONCRETE WORK	\$ 1,155,000.00
TRAFFIC CONTROL	\$ 482,500.00
EROSION CONTROL	\$ 200,000.00
GUARDRAIL	\$ 16,800.00
SIGN/ STRIPE/ SIGNAL	\$ 533,000.00
LANDSCAPING/ GRASSING	\$ 20,000.00
MISCELLANEOUS	\$ 70,900.00
SUBTOTAL ROADWAY ITEMS	\$ 7,311,400.00
MAJOR STRUCTURES	\$ 534,000.00
TOTAL CONSTRUCTION ESTIMATES	\$ 7,845,400.00
5 % INFLATION FOR 5 YRS	\$ 2,167,600.00
10 % E&C	\$ 1,013,000.00
TOTAL	\$ 11,014,300.00

**PRELIMINARY COST ESTIMATE  
DISTRICT URBAN DESIGN OFFICE**

DATE: March 19, 2002 PREPARED BY: PBS&J

PROJECT NO.: STP-7001 (9)

P.I. NO.: 250510- MILEAGE: 2.4 miles

PROJECT DESCRIPTION: Widening of Wrightsboro Road from Jimmie Dyess Pkwy to I-520  
southbound ramp terminal

PROPOSED CONCEPT: Four 12' travel lanes, 4' bike lanes and a 20' raised median

EXISTING ROADWAY (If Applicable): Wrightsboro Road

TRAFFIC: Existing: 31,650 (2004) Design: 42,300 (2025)

☐ PROGRAMMING PROCESS

☒ CONCEPT DEVELOPMENT

☐ DURING PROJECT DEVELOPMENT

**PROJECT COSTS**

**A. RIGHT-OF-WAY**

1. PROPERTY (Land and Easements)

\$ 5,400,000.00

SUBTOTAL \$ 5,400,000.00

**B. REIMBURSABLE UTILITIES**

1. SERVICES

\$ 250,000.00

SUBTOTAL \$ by Richmond County

**C. MAJOR STRUCTURES**

1. BRIDGES

Two - Triple 8' X 6' concrete box culverts \$ 460,000.00

2. CULVERTS

One 10' X 6' concrete box culvert \$ 74,000.00

3. MISCELLANEOUS

\$

SUBTOTAL \$ 534,000.00

1. BORROW:	<u>30,000 cu. yds. @ \$ 12.00</u>	\$ <u>360,000.00</u>
2. EXCAVATION:		
SOIL:	<u>40,000 cu. yds. @ \$ 6.00</u>	\$ <u>240,000.00</u>
ROCK:	<u>          yds. @ \$</u>	\$ <u>                    </u>
	SUBTOTAL	\$ <u>600,000.00</u>

<u>9381</u> lf of <u>18"</u> dia @ \$ <u>28.85</u>	\$ <u>270,642.00</u>
<u>6115</u> lf of <u>24"</u> dia @ \$ <u>35.00</u>	\$ <u>214,025.00</u>
<u>300</u> lf of <u>30"</u> dia @ \$ <u>45.00</u>	\$ <u>13,500.00</u>
<u>420</u> lf of <u>48"</u> dia @ \$ <u>80.00</u>	\$ <u>33,600.00</u>
<u>4</u> FES <u>30"</u> dia @ \$ <u>622.00</u>	\$ <u>2,488.00</u>
<b>2. SIDE DRAIN PIPE</b>	
_____ lf of _____ dia @ \$ _____	\$ _____
_____ lf of _____ dia @ \$ _____	\$ _____
_____ FES _____ dia @ \$ _____	\$ _____
_____ FES _____ dia @ \$ _____	\$ _____

<u>100</u>	ea.	<u>Catch basin</u>	@ \$	<u>1750.00</u>		\$	<u>175,000.00</u>
<u>50</u>	lf.	<u>Addl Depth</u>	@ \$	<u>165.00</u>		\$	<u>8,250.00</u>
<u>15</u>	ea.	<u>Drop Inlet</u>	@ \$	<u>1671.00</u>		\$	<u>25,065.00</u>

4. MISCELLANEOUS

<u>2000 lf 6" dia.</u>	<u>Under Drain Pipe @ \$ 6.00</u>		\$	<u>12,000.00</u>
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SUBTOTAL \$ 754,570.00

70,000 tons @ 15.51 \$ 1,085,700.00

12,700	tons of	12.5 mm Superpave	@ \$	38.60		\$	490,220.00
10,500	tons of	19 mm Superpave	@ \$	39.30		\$	412,650.00
22,600	tons of	25 mm Superpave	@ \$	37.00		\$	836,200.00
2500	tons of	LEVELING	@ \$	38.00		\$	95,000.00
8800	gals of	TACK COAT	@ \$	1.00		\$	8,800.00

### 3. CONCRETE PAVING

		\$	
4. MISCELLANEOUS		\$	
	SUBTOTAL	\$	2,928,570.00

#### G. CONCRETE WORK

1. CURB AND GUTTER			
56,000 lf @ \$	10.00	\$	560,000.00
2. SIDEWALKS			
18,200 sy @ \$	22.00	\$	400,400.00
3. MISCELLANEOUS			
2000 sy - 4" Driveway Conc. @ 22.00		\$	44,000.00
1000 sy - 6" Concrete Valley Gutter @ 26.00		\$	26,000.00
800 sy - 8" Concrete Valley Gutter @ 35.00		\$	28,000.00
2300 sy - 7 1/2" Concrete Median @ 42.00		\$	96,600.00
	SUBTOTAL	\$	1,155,000.00

#### H. SIGN/ STRIPE/ SIGNAL

41,000 lf Striping 5" Solid Yellow @ 0.20	\$	8,200.00
65,000 lf Striping 5" Solid White @ 0.20	\$	13,000.00
2,100 lf Striping - 12" Solid White @ 1.20	\$	2,520.00
650 lf Striping - 24" Solid White @ 3.30	\$	2,145.00
25,000 lf Striping - Skip White @ 0.10	\$	2,500.00
60 ea. - TP2 Arrow @ 52.00	\$	3,120.00
2300 sy Striping - Yellow @ 5.00	\$	11,500.00
10,000 ft Interconnect conduit and wire @ 35.00	\$	350,000.00
2 - Traffic Signals @ 60,000.00	\$	120,000.00
Highway signs - Lump	\$	20,000.00
	SUBTOTAL	\$ 532,985.00

#### I. GUARDRAIL

600 lf Ty W @ \$	15.00	\$	9,000.00
lf Ty @ \$		\$	
4 Anchors Ty 12 @ \$	1,500.00	\$	6,000.00
4 Anchors Ty 1 @ \$	450.00	\$	1,800.00
if @		\$	
	SUBTOTAL	\$	16,800.00

J. TRAFFIC CONTROL

1. TEMPORARY BARRIER

500 If Ty Method 2 @ \$ 25.00 \$ 12,500.00

2. SIGN/LIGHT/ BARRICADES/ ETC.

Barrels, signs and lighting \$ 20,000.00

3. TRAFFIC CONTROL - LUMP

\$ 450,000.00

SUBTOTAL \$ 482,500.00

K. LUMP ITEMS

1. CLEARING AND GRUBBING

55 Acres @ \$ 10,000.00 \$ 550,000.00

2. LANDSCAPE/ GRASSING

40 Acres @ \$500.00 \$ 20,000.00

3. EROSION CONTROL

40 Acres @ 5,000.00 \$ 200,000.00

SUBTOTAL \$ 770,000.00

L. MISCELLANEOUS

1. FENCING

                     If @ \$                      \$                     

2. OTHER/ SPECIAL FEATURES

160 Right-of-Way markers @ \$74.00 \$ 11,840.00

400 sy of Rip-Rap @ \$35.00 \$ 14,000.00

Field Engineers Office - Lump \$ 35,000.00

Wetland Mitigation - Lump \$ 10,000.00

SUBTOTAL \$ 70,840.00

